

Remarks

Claims 1-42 are pending in this Application. By this Amendment, claims 1, 16, 35 and 38-42 are amended. After entry of this Amendment, claims 1-42 will be pending. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Request for Interview

Applicant formally requests the Examiner to contact the undersigned attorney prior to issuance of the next Office action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Rejection of Claims 20, 40 and 41 Under 35 U.S.C. § 112, Second Paragraph

The Office Action rejects claims 20, 40 and 41 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. More specifically, the Office action alleges that the recitation of “said first side portions” in claim 20 and the recitation of “said hole diameter” in claims 40 and 41 lacks antecedent basis. This rejection is respectfully traversed.

Claim 20 has been amended to recite “said side portions” instead of “said first side portions.” Accordingly, the recitation of “said side portions” in claim 20 has proper antecedent basis.

Claims 40 and 41 have been amended to recite “a diameter of said recess” instead of “said hole diameter.” Accordingly, the features of claim 40 and 41 have proper antecedent basis.

Based on the above, withdrawal of this §112 rejection of claims 20, 40 and 41 is respectfully requested.

Rejection of Claims 1-42 Under 35 U.S.C. § 112, First Paragraph (Written Description)

The Office Action rejects claims 1-42 under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. More specifically, the Office Action alleges that the reference in claims 1, 16, 38 and 39 to jaw fingers that orient a

stud from one of a plurality of orientations into a predetermined stud orientation recited is new matter. This rejection is respectfully traversed.

In order to more precisely define the claimed subject matter, Applicant has amended claim 1 to recite:

wherein said at least one anti-slip stud is drivable into and through the stud capturing space by actuation of the plunger pin, wherein the at least one anti-slip stud enters the stud capturing space in a first stud orientation with respect to the stud center line, and wherein by contact of each jaw finger with a respective one of the at least two first and the at least two second side portions of the bottom flange, said at least one anti-slip stud is rotated about the stud center line relative to the jaw fingers from the first stud orientation to a second, predetermined stud orientation, if the first stud orientation differs from the predetermined stud orientation, as said stud is driven through the stud capturing space.

(emphasis added). Claims 16, 38, and 39 have been amended in a similar manner.

Applicant submits that the specification adequately discloses the subject matter recited in claims 1, 16, 38 and 39. For example, referring to Fig. 15, the specification states: “The jaw fingers 3, 4, 5, 6 are charged by the force F^* against each other, which power can be generated by any suitable known or new way, such as springs, pneumatics or possibly hydraulics” Page 16, lines 13-15. Further, “the bottom flange [of the stud] proceeds ahead along the mutual interval 17 of the jaw fingers in the direction F_2 , by means of the plunger pin 11 and force F into the stud recess.” Page 19, lines 8-9; Figures 16A-16D. As further stated in the specification, “the first type of bottom flange configuration is utilized together with the jaw fingers of [the] installation tool to attain a predetermined orientation of the anti-slip studs.” Page 5, lines 22-24. By virtue of the number of jaw fingers relative to the shape of the bottom flange of the stud, the stud is always caused to rotate about its center line to the correct, predetermined stud orientation as the stud is pressed through the space between the jaw fingers, unless the stud is already in the correct stud orientation when it is loaded into the space between the jaw fingers.

MPEP § 2163.07(a) provides that if a device, as disclosed in an application, inherently performs a function or has a property, operates according to a theory or has an advantage, then the application necessarily discloses that function, theory or advantage. Explicit support for the function, theory or advantage in the application as filed is not required. Amending the claims to recite the function, theory or advantage is not considered to be new matter and therefore complies with the written description requirement under 35 U.S.C. § 112, first paragraph. In the

present application, the apparatus having the proper number of jaw fingers relative to the stud flange as disclosed in the application would inherently cause the stud to rotate about the stud center line relative to the jaw fingers to assume the correct predetermined stud orientation.

Hence, claims 1, 16, 38 and 39 comply with the written description requirement of § 112, first paragraph. Accordingly, withdrawal of the written description rejection of claims 1, 16, 38 and 39, as well as respective dependent claims 2-15, 17-37 and 40-42, under § 112 is respectfully requested.

The Office Action states that the application fails to disclose the component that feeds the stud to the position shown in FIG. 16A and the component that guides the plunger 11. In reply, Applicant notes that these components are known in the art and do not directly effect the positioning of the stud as it is driven through the jaw fingers. As discussed above, the number of jaw fingers relative to the shape of the flange of the stud (which contacts the jaw fingers) causes the stud to assume the proper stud orientation as it is driven through the jaw fingers, not the components that feed the stud into the space between the jaw fingers and guide the plunger 11.

Rejection of Claims 1-42 Under 35 U.S.C. § 112, First Paragraph (Enablement)

The Office Action also rejects claims 1-42 under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the enablement requirement. More specifically, the Office Action alleges that the reference in claims 1, 16, 38 and 39 to jaw fingers that orient a stud from one of a plurality of orientations into a predetermined stud orientation recited in claims is not enabled. This rejection is respectfully traversed.

The enablement requirement under 35 U.S.C. § 112, first paragraph, requires that the specification describe the invention in such terms to allow one skilled in the art to make and use the invention as claimed. The apparatus disclosed in the application would inherently cause a stud to rotate about the stud center line relative to the jaw fingers to assume the correct predetermined stud orientation (unless the stud is already in the correct stud orientation when loaded into the space between the jaw fingers). Thus, Applicant submits that the specification describes the claimed subject matter in sufficient detail to enable one skilled in the art to make and use the claimed subject matter.

Accordingly, withdrawal of the enablement rejection of claims 1, 16, 38 and 39, as well as respective dependent claims 2-15, 17-37 and 40-42, under § 112 is respectfully requested.

Rejection of Claims 1-6, 8-22, and 30-42 Under 35 U.S.C. § 103

Claims 1-6, 8-22 and 30-41 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,385,742 (“Pettersson”) in view of at least one of U.S. Patent Application Publication No. 2002/0050312 (“Ostrovskis”) and Russian Patent No. 2,152,318 (“Russia”). Applicant respectfully traverses this rejection.

As discussed above, claims 1 and 16 have been amended to recite a combination for installing anti-slip studs that comprises, among other features, at least one anti-slip stud and an installation tool having jaw fingers with “tip portions defining a stud capturing space.” The anti-slip stud is “drivable into and through the stud capturing space by actuation of the plunger pin.” Further, the claims specify that “by contact of each jaw finger with a respective one of the at least two first and the at least two second side portions of the bottom flange, said at least one anti-slip stud is rotated about the stud center line relative to the jaw fingers from the first stud orientation to a second, predetermined stud orientation, if the first stud orientation differs from the predetermined stud orientation, as said stud is driven through the stud capturing space. Claims 38 and 39 have been amended in a similar manner as discussed above.” (emphasis added.)

The applied combination of Pettersson and either one or both of Ostrovskis and Russia does not render obvious the combination of features recited in independent claims 1, 16, 38 and 39. For example, the applied combination of references does not teach, disclose, or suggest a stud installation tool and a stud having a particular shape such that it is caused to rotate about its center line and assume a predetermined orientation as the stud is driven through the jaw fingers of the tool. Generally speaking, Pettersson is not concerned with stud orientation relative to its stud center line, Ostrovskis is not concerned with jaw fingers, and Russia is not concerned with using jaw fingers to adjust the orientation of a stud. Accordingly, even if one were motivated to combine the applied references, which one would not be, the resulting method and apparatus would not include each and every feature recited in the independent claims.

Pettersson Does Not Permit Adjustment of the Orientation of a Stud

Pettersson describes a method and apparatus for fastening anti-skid spikes in tires. The Pettersson apparatus appears to include “a bore 20 into which the spikes are moved one by one

through a feeder channel 21” and then “into a position between the finger end portions 17a, 18a, 19a” of jaw fingers 17, 18, 19, respectively. Column 2, lines 55-60. The bore 20 has the same shape as the spikes, i.e., circular. See Figs. 2 and 6. The jaw fingers “spread apart to expand the wall of the drilled hole for receiving and positioning a spike between the fingers within the hole.” Column 1, lines 55-57. According to Pettersson, the jaw fingers “press more or less against the head of the spike” as the spike is being inserted into the hole. Column 2, lines 5-6. The jaw fingers are “forced radially outwardly and open gradually when the spike head is sliding along the fingers into its bottom position in the hole.” Column 3, lines 21-23.

Because the spikes described in Pettersson have circular cross-sectional shapes, the jaw fingers cannot cause the spike to rotate relative to its center line to assume a predetermined orientation as the spike is driven through the jaw fingers. Accordingly, there is no reasonable suggestion in Pettersson to use the jaw fingers to adjust the orientation of the spike as it slides along the jaw fingers.

Ostrovskis Does Not Teach or Suggest Jaw Fingers

Ostrovskis discloses out-of-round spikes for tires. The spikes are installed into a tire through use of an injection pipe 30 that is “suitable as a device for installing spikes,” “seating spikes” and “mounting spikes.” Page 4, paragraphs 45, 46 and 66. More specifically, the studs or spikes of Ostrovskis are “shot, preferably while the running surface is still unvulcanized, into the [blank] running surface” of the tire using the injection pipe 30. Page 1, paragraph 8. In other words, Ostrovskis teaches that spikes are “shot” directly into the soft unvulcanized tread of a tire using an injection pipe. The injection pipe 30 has a cross-sectional shape that is the same as the out-of-round cross-sectional shape of the spikes in order to seat the spike in “the right orientation relative to the circumferential direction of the tire.” Page 3, paragraph 43. The injection pipe 30 cannot expand in the radially direction like the jaw fingers of the Applicant’s device. Thus, as a spike moves through the injection pipe, the spike cannot rotate or otherwise change its orientation relative to the injection pipe.

Rather than being inserted into recesses that are pre-formed in hard vulcanized tread, as with conventional spikes, the Ostrovskis spikes are shot into a soft unvulcanized tread. Therefore, Ostrovskis does not teach or suggest jaw fingers for spreading apart recesses in the tire or for any other reason. Accordingly, even though Ostrovskis may teach out-of-round

spikes, there is no teaching or suggestion to use anything other than an injection tube to install the spikes.

Russia's Pushers/Lips Do Not Function Like The Claimed Jaw Fingers

Russia appears to disclose a tire studding device having a guide tube 11 through which out-of-round studs are feed and by which the studs are maintained in a specific desired orientation. See Figs. 15, 16 and 18. Similar to the injection pipe of Ostrovskis, the guide tube 11 has the same cross-sectional shape as the studs in order to keep the studs in a single orientation as they move along the guide tube 11. See Figs. 17-19. Upon exiting the guide tube 11, pushers 16 contact the circular body 1 of the studs and push the studs between lips 14 and into a hole formed in the tire tread. See Figs. 11, 12 and 19.

The pushers 16 are not jaw fingers as recited in the claims and do not contact the out-of-round flange 2 of the stud. Rather, as shown in FIG. 19, the pushers 16 contact the round body 1 of the stud at a location above the flange 2. Thus, as presently understood, the pushers 16 could not (would not) adjust the orientation of the stud about its center line as the stud is being pushed into the hole. In other words, the pushers 16 do not interact with the out-of-round surfaces of the flange, and therefore cannot cause the stud to rotate about its center and assume a predetermined stud orientation. This makes sense because the desired orientation is determined by the injection pipe. Changing the orientation of the stud upon exiting the injection pipe would defeat the purpose of the device.

The lips 14 are used exclusively for widening the hole in the tire tread prior to installing a stud in the hole. As presently understood, the lips 14 do not contact any portion of the stud as it is pushed between the lips and into the hole. Therefore, the lips 14 are not capable of causing the stud to rotate about its center and assume a predetermined stud orientation.

According to the Office Action, Russia shows the use of three pushers 16, i.e., "one pusher for each side of the bottom flange." See page 9. The Office Action further states that Russia contains a "suggestion to associate a pusher 16/lip 14 for *each side* of an out of round stud (see figures 15-19)." See page 10.

Applicant respectfully submits that the Office Action's interpretation of Russia is incorrect. As discussed above, and shown in Fig. 19, the pushers 16 extend through openings 17 in the guide tube 11 and contact the cylindrical body 1 of the stud and not the non-round bottom

flange 2 of the stud. See Figs. 11 (stud) and 19 (stud, guide tube, pushers) duplicated below. According to Fig. 19, the pushers 16 extend past the bottom flange 2 and terminate at the cylindrical body 1 of the stud. Therefore, the pushers 16 do not contact the bottom flange 2 and thus have no disclosed or apparent association with the shape of the flange. Just because the bottom flange 2 of the stud in Russia may have three sides and the device of Russia may have three pushers 16, does not mean that there is a taught or suggested association between the number of sides of the bottom flange and the number of pushers. Without more, the fact that the number of sides of the bottom flange is equal to the number of pushers 16 is purely a coincidence recognizable only with the aid of Applicant's disclosure, and not a teaching or suggestion to be relied upon by one skilled in the art.

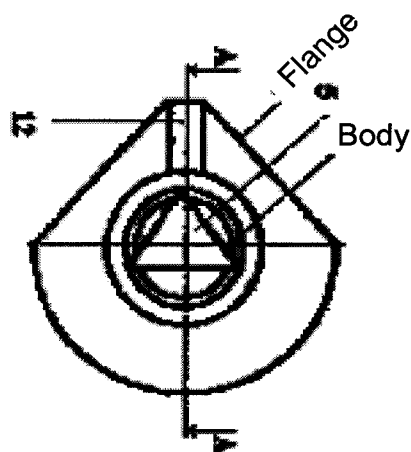


FIG. 11

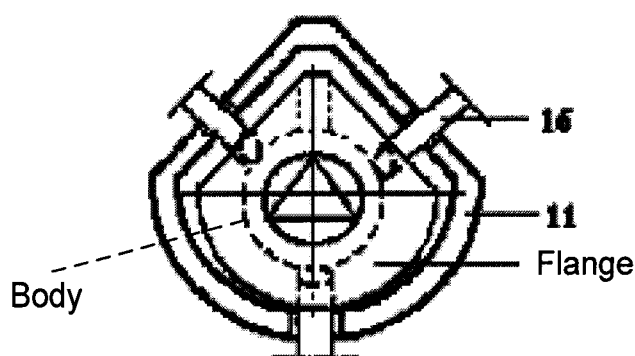


FIG. 19

Applicant also disagrees with the Office Action's assertion that Russia suggests a lip 14 for each side of an out of round stud. Figs. 15 and 16 of Russia show only two lips 14 and thus Russia does not even show one lip for each side of an out of round stud, much less suggest such an association. Accordingly, Russia does not contain a suggestion to associate one lip 14 with each side of an out of round stud.

Analysis

According to the Office Action, the claimed number of jaw fingers being in contact with respective side or edge portions of the flange of a stud is suggested by Pettersson's alleged teaching to contact a bottom flange of a stud with a number of fingers and Ostrovskis and/or

Russia's suggestion to use out of round cross-sectional shaped bottom flanges. Page 11. The Office Action further emphasizes that this alleged suggestion is "especially true in view of the teaching in Russia to associate a pusher 16/lip 14 for *each side* of an out of round stud." *Id.*

1. *The References Do Not Teach the Relationship Between the Number of Jaw Fingers and the Shape of the Bottom Flange*

Regarding independent claims 1 and 16, even if Pettersson can be relied upon for teaching a number of fingers in contact with a stud and Ostrovskis and Russia can be relied upon for suggesting an out of round cross-sectional shaped bottom flange, neither Pettersson, Ostrovskis nor Russia, whether considered alone or in combination, teach or suggest the more specific claimed relationship between the number of fingers and the particular cross-sectional shape of the non-round bottom flange. In other words, Applicant is not attempting to broadly claim a stud with a non-round bottom flange and an installation tool with jaw fingers that contact the flange. Rather, the claimed subject matter is directed toward the interdependent relationship between the number of jaw fingers contacting the bottom flange and the cross-sectional shape of the non-round bottom flange of the stud. This claimed relationship is not taught, suggested or recognized in any of the applied combination of references.

For example, neither Pettersson, Ostrovskis nor Russia teaches whether a greater or fewer number of jaws or lips should be used for stud flanges of different shapes or explains how to determine the number of jaws or lips that should be used depending on the shape of stud flange. Since Pettersson discloses only a round stud flange, this reference clearly does not teach or suggest how one would determine the number of jaw fingers that should be used to accommodate a non-round stud flange. In Russia, jaw fingers (or lips) are not used to contact a non-round portion of the stud and in Ostrovskis, the installation tool does not even include any jaw fingers. Thus, these two references do not make up for the deficiencies of Pettersson.

MPEP § 2141.02(I) provides that in a proper obviousness analysis under 35 § 103, the relevant inquiry is whether the claimed invention as a whole would have been obvious, not whether each difference between the claim and the prior art would have been obvious. An invention that is a combination of known elements is nonobvious if the prior art does not suggest the desirability of making the combination. Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984) ("That the claimed

invention may employ known principles does not itself establish that the invention would have been obvious.”).

The rejection of claim 1, for example, illustrates that the Office Action has not met the PTO’s burden of showing that the prior art suggests making the respective combination of features recited in the claims. In the rejection of claim 1, the Office Action contends that the following are obvious limitations: (i) the use of more than three jaw fingers in an installation tool of the type disclosed in Pettersson and (ii) installing a stud having a non-round flange using an installation tool of the type disclosed in Pettersson. See page 10 of the Action. However, with respect to claim 1, the Office Action fails to provide any evidence that the prior art teaches the claimed combination of features as a whole, and in particular, a stud having at least two second side portions and an installation tool having a number of jaw fingers equal to twice the number of second side portions of the stud.

Indeed, the Office Action itself shows the prior art does not provide any motivation to make the combination recited in claim 1. In particular, the Office Action states that limitation of the number of jaw fingers being twice the number of second side portions of the stud flange is suggested by: (i) Pettersson’s teaching of contacting a stud flange with “a number” of jaw fingers and (ii) the non-round flange suggested by Ostrovskis and/or Russia. See pages 10-11 of the Action. The showing of a motivation to combine must be clear and particular. Teleflex Inc. v. Ficosa North Am. Corp., 299 F.3d 1313, 63 U.S.P.Q. 1374, 1387 (Fed. Cir. 2002). Here, the Office Action has pieced together two different motivations from multiple references to justify a combination of references. There is no one clear and particular motivation to make the claimed combination, nor has the Office Action provided any evidence of one.

Further, Pettersson’s teaching of contacting a stud flange with “a number” of jaw fingers alone does not suggest an installation tool in which the number of jaw fingers are twice the number of second side portions of the stud flange. Nor does Ostrovskis’ and/or Russia’s teaching of a non-round stud flange alone suggest a tool in which the number of jaw fingers are twice the number of second side portions of the stud flange. Only by combining the two motivations, which is not allowed, is the Office Action able to justify combining separate elements from different references.

Finally, as noted above, the Office Action offers the justification for the rejection of claim 1 that “Russia [teaches] to associate a pusher 16 / lip 14 for each side of an out of round

stud as suggested by figures 15-19.” This statement is incorrect. As explained above, FIGS. 15-19 actually show that the pushers 16 contact the round neck portion of the stud and there is no mention in Russia that the lips 14 can contact the out of round portion of a stud. Even if the lips 14 could contact the out of round portion of the stud, there are only two such lips 14, and therefore, there cannot possibly be a lip 14 for each side of the out of round portion of the stud.

2. *Pettersson Does Not Teach or Suggest More Than Three Jaw Fingers*

Contrary to the Office Action’s assertion, Pettersson does not teach or suggest using more or less than three jaw fingers. Pettersson states that the apparatus shown and described “forms a body which at its forward end has three radially movable jaw fingers 17, 18, 19.” Column 2, lines 46-48. Pettersson provides no indication anywhere that the number of jaw fingers can be more or less than three. The Office Action asserts that the statement “inserting a number of fingers into said hole” recited in claim 1 of Pettersson provides a teaching of using more than three fingers. Applicant respectfully disagrees. First, no where does Pettersson indicate that the installation tool has a number of fingers “such as” three. Second, Pettersson teaches only three fingers and thus the reference in the claims to a number of fingers would be interpreted to refer to the number of fingers described in the specification, i.e., three. Therefore, one of ordinary skill in the art would understand Pettersson to teach three fingers and not more than three fingers.

The Office Action also contends that one of ordinary skill in the art would readily appreciate that the use of more than three fingers would facilitate expansion of the hole for a stud. Page 10. Applicant disagrees. Pettersson teaches using of an internal cam member 26 (FIG. 7) or other power means, rather than using additional jaw fingers, to facilitate expansion of the hole. Pettersson explains that the compressive forces of the wall of the hole (that receives a stud) against the jaw fingers can damage the head (bottom flange) of a stud as the stud is driven through the jaw fingers. Column 2, lines 5-12. To solve this problem, Pettersson provides a rotatable cam 26 that is effective to spread apart the jaw fingers before the stud is inserted between the jaw fingers. During installation of a stud, handles 31, 34 are rotated while handle 29 is held still. Rotation of handles 31, 34 is effective to rotate the cam member 26, which causes the jaw fingers 17, 18, 19 to spread apart and expand the wall of the hole, leaving a space for inserting the stud. Column 3, lines 30-53. Consequently, because the hole can be expanded to size sufficient to permit a stud to be easily inserted into the hole without damage to the stud by

simply activating the handles 31, 34, there does not appear to be any need for additional jaw fingers to further expand the hole. If anything, adding more jaw fingers to Pettersson would unnecessarily complicate the device without providing any apparent benefit, and therefore the skilled artisan would be deterred from modifying the Pettersson device in this manner.

Even assuming for the sake of argument only that any number of jaw fingers can be used in the Pettersson device, none of the references teach or suggest what the number of jaw fingers should be based on the configuration of the stud flange.

Accordingly, for at least the above reasons, the applied combination of references does not render obvious the combination of features recited in the independent claims.

3. *The References Do Not Teach Rotating A Stud with Jaw Fingers*

Further in regard to independent claims 1 and 16, and also in regard to independent claims 38 and 39, the applied combination of references does not teach or suggest jaw fingers that cause a stud having a non-round flange to assume a predetermined orientation. As amended, the claimed jaw fingers do more than just contact the bottom flange of the stud, they cause the stud to rotate about its center line to the predetermined position as the stud is respectively driven or moved through a stud capturing space between the jaw fingers.

There is no teaching or suggestion in the applied combination of references to use jaw the fingers of an installation tool in this manner, nor do the references explain how one would determine the correct number of jaw fingers to achieve this function. As mentioned above, the jaw fingers of Pettersson and the lips of Russia are used solely to widen or enlarge pre-made holes in the tread of a tire in anticipation of receiving a stud. There is no mention in either Pettersson or Russia that the jaw fingers or lips, respectively, cause the studs to rotate and assume a predetermined orientation relative to its center line as the stud is driven through the jaw fingers.

Additionally, Pettersson is not concerned with orientation of the stud with respect to a stud center line, but concerned only with the stud position, i.e., the tilt or depth of the stud. Pettersson recognizes that previous stud installation tools that use a hammer or other striking device to drive studs into a tire often installed the studs in an inaccurate position. Column 1, lines 40-44. It is commonly known that using a hammer to install studs can cause the studs to be positioned at an incorrect depth or inaccurately tilted. One object of Pettersson is to overcome the shortcomings of previous installation tools by accurately positioning studs in the tire. See

Column 1, lines 40-49. Therefore, the positioning of the studs addressed by the Pettersson apparatus is directed to the depth and/or tilting of the studs and not the rotational orientation of the studs with respect to the stud center line.

4. *No Reasonable Expectation of Success*

There would not have been a reasonable expectation of success using the Pettersson apparatus to install non-round studs into pre-made holes as asserted by the Office Action. For example, even if one were motivated to modify the Pettersson apparatus in view of either Ostrovskis or Russia, the modified apparatus would not work to install non-round studs as recited in the claims.

The Pettersson apparatus modified in view of Ostrovskis could not be used to properly install a stud. The modified Pettersson apparatus would include the apparatus as substantially described in Pettersson, but the bore 20 would be modified in view of the pipe 30 of Ostrovskis to have the cross-sectional shape of a non-round spike, such as spike 1 shown in Figure 3 of Ostrovskis below. Ostrovskis provides no other teachings or suggestions to modify the jaw fingers of Pettersson to accommodate the non-round spike of Ostrovskis. Therefore, the modified Pettersson device would move the non-round spike through the bore 20 and between the three fingers 17, 18, 19 (which have been added to Figure 3 below). As allegedly taught by Pettersson, the jaw fingers will press against the spike and thus apply a force on the spike in the directions indicated by the arrows added to Figure 3 of Ostrovskis below.

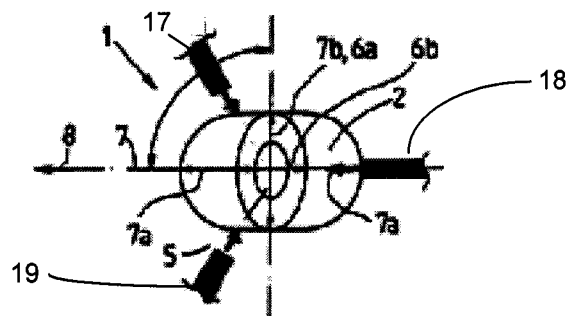


Figure 3

With reference to Figure 3 above, the configuration of the jaw fingers 17, 18, 19 of Pettersson would not adequately grip the stud, and thus the stud would likely tilt, rotate, incline or slide out of engagement between the jaw fingers when pressure from the jaw fingers is applied to the stud. For example, the direction and location of the forces applied by the jaw fingers 17

and 19 compared to the force applied by jaw finger 18 would likely cause the stud to slide out from between the fingers or cause one end of the stud to elevate or be lowered with respect to the opposite end. As recognized by Pettersson, and commonly known in the art, a tilted, eccentric, or otherwise inaccurately positioned stud would result in an ineffective and improper installation of the stud. Accordingly, the Pettersson apparatus modified in view of Ostrovskis would not work properly to install a stud having a non-round flange in the tread of a tire. Therefore, without some indication of the relationship between the number of jaw fingers of the Pettersson apparatus and the shape of the Ostrovskis stud, there would have been no reasonable expectation of success to use the Pettersson apparatus to install non-round studs as taught by Ostrovskis.

5. *The References Teach Away From Each Other*

The Office Action contends that Ostrovskis and/or Russia would “motivate one of ordinary skill in the art to use ‘non-round’ tire studs in Pettersson’s process for installing studs in premade holes in a tread.” Page 9. Applicant’s disagree. Whereas Pettersson’s device includes jaw fingers and is adapted to install studs with round flanges, Ostrovskis’s and Russia’s devices are adapted to install studs with non-round flanges yet both devices employ technology that is substantially different from that of Pettersson. As discussed above, the pushers 16 and lips 14 in Russia are not used to handle the non-round portion of the stud, and the Ostrovskis device does not even have any fingers, lips, pushers, etc. Conventional wisdom therefore teaches against using the type of installation tool disclosed in Pettersson when installing studs having non-round flanges. MPEP § 2146(D)(2), p. 2100-161 provides that it is improper to combine references where the references teach away from their combination. Here, the teachings of Ostrovskis and Russia run directly contrary the teachings of Pettersson, and therefore one would not combine Pettersson with Ostrovskis and/or Russia.

Further, Pettersson issued in 1968 from an application filed in 1963, which claimed priority to a foreign application filed in 1962. Studs with non-round flanges also have been known for decades. If Applicant’s device was obvious, the skilled artisan having knowledge of the Pettersson technology certainly would have already arrived at the solution posed by Applicant in the present application. However, despite the fact that installation tools of the type shown in Pettersson and studs with non-round flanges have been known for decades, Applicant of the present application is the first to conceive the novel combination of features recited in present claims.

Accordingly, for at least the above reasons, the applied combination of references does not render obvious the subject matter of claims 1, 16, 38 and 39. Therefore, withdrawal of the rejection of claims 1, 16, 38 and 39 for obviousness is respectfully requested.

Claims 2-6, 8-15 and 40, being dependent upon base claim 1, claims 17-22, 30-37 and 41, being dependent upon, claim 42, being dependent upon base claim 38, are allowable for at least the same reasons as for the respective base claims, as well as in view of the respective additional features recited these dependent claims. Therefore, withdrawal of the rejection of claims 2-6, 8-15, 17-22, 30-37 and 40-42 for obviousness is respectfully requested.

Rejection of Claims 7, 8, 29 and 30 Under 35 U.S.C. § 103(a)

The Office Action rejects claims 7, 8, 29 and 30 under 35 U.S.C. § 103(a) for alleged obviousness over Pettersson in view of at least one of Ostrovskis and Russia, and further in view of U.S. Patent No. 6,374,886 (“Eromaki”). This rejection is respectfully traversed.

As discussed above, the applied combination of Pettersson and at least one of Ostrovskis and Russia does not render obvious independent claims 1 and 16.

Eromaki does not provide for the deficiencies of Pettersson, Ostrovskis and Russia. For example, Eromaki does not teach, disclose or suggest an association between the number of jaw fingers and the cross-sectional shape of a non-round anti-skid stud. Also, Eromaki does not teach, disclose or suggest rotating a stud from a first stud orientation with respect to a stud center line as the stud is driven through a stud capturing space. Accordingly, the applied combination of Pettersson, Eromaki and at least one of Ostrovskis and Russia do not render obvious the combination of features recited in claims 1 and 16.

Claims 7 and 8, being directly dependent upon base claim 1, and claims 29 and 30, being directly dependent upon base claim 16, are allowable for at least the same reasons as for the respective base claims, as well as in view of the respective additional features recited in these dependent claims. Therefore, withdrawal of the rejection of claims 7, 8, 29 and 30 for obviousness is respectfully requested.

Rejection of Claims 23-28 Under 35 U.S.C. § 103(a)

The Office action rejects claims 23-28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pettersson in view of at least one of Ostrovskis and Russia, and further in view

of Finland Patent No. 9/65 ("Finland") or Japanese Patent No. 56-146407 ("Japan"). Applicant respectfully traverses this rejection.

As discussed above, the applied combination of Pettersson, Ostrovskis, and Russia fail to render obvious the subject matter of independent claim 16.

Applicant submits that neither Finland nor Japan provide for the deficiencies of Pettersson, Ostrovskis and Russia. For example, neither Finland nor Japan teach, disclose or suggest an association between the number of jaw fingers and the cross-sectional shape of a non-round anti-skid stud. Also, Finland and Japan do not teach, disclose or suggest rotating a stud from a first stud orientation with respect to a stud center line as the stud is driven through a stud capturing space. Accordingly, the applied combinations of (1) Pettersson, Finland and at least one of Ostrovskis and Russia and (2) Pettersson, Japan and at least one of Ostrovskis and Russia would not have rendered obvious the features recited in claim 16.

Claims 23-28, being indirectly dependent upon base claim 16, are allowable for at least the same reasons as for the base claim, as well as for the respective additional features recited in these dependent claims. Therefore, withdrawal of the rejection as to claims 23-28 is respectfully requested.

Conclusion

Based on the foregoing, Applicant respectfully submits that the claims are drawn to allowable subject matter and that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place this application in better condition for allowance, the Examiner is requested to contact Applicant's representative by telephone.

Respectfully submitted,

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